pEDFA Series

New!

High-Power, Multiport EDFA

The Optilab pEDFA Series are innovative, high-power EDFA's with up to +40 dBm and up to 64 output ports utilizing an internal splitter enclosed in a single 2RU housing for RFOG, HFC, and deep fiber applications. The pEDFA Series uses multimode laser pumping, all-fiber combiner and Er/Yb double-clad, large-core fiber technologies to achieve high output power in conjunction with low cost. Constructed with long term uninterrupted service in mind, the pEDFA Series provides the best cost/performance ratio in the industry. Contact Optilab for more information.

Features

➤ Up to 64-ports
➤ +19 dBm output power per port
➤ Up to +40 dBm total output power
➤ Noise figure of 4.5 dB
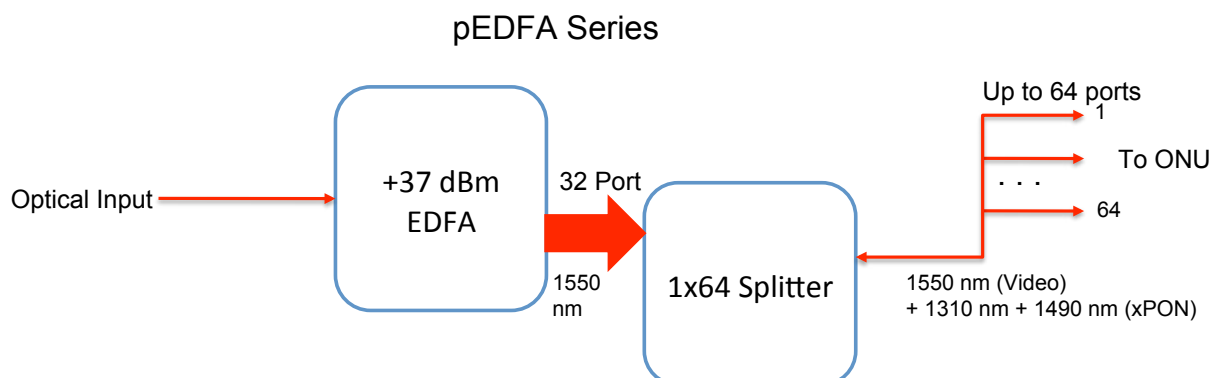➤ Supports SNMP
➤ 2RU Housing
➤ **3 year warranty standard**

Applications

➤ RFOG
➤ HFC + EPON
➤ HFC + GPON
➤ For RUS/USDA projects
➤ Deep Fiber HFC

USDA Rural Development
Committed to the future of rural communities.

This Optilab product meets Buy American and is RUS accepted

Functional Diagram

pEDFA Series

Optical Input → +37 dBm EDFA → 32 Port / 1550 nm → 1x64 Splitter → 1550 nm (Video) + 1310 nm + 1490 nm (xPON)

Up to 64 ports
1
. . .   To ONU
64

High-Power, Multiport EDFA | pEDFA Series

OPTIONS

pEDFA-xx-yy

xx   Output Power Level

yy   # of Output Ports

TECHNICAL INFO

For technical info and support:

sales@optilab.com

www.optilab.com

PHONE

Contact Optilab at:

1-888-553-3888 (toll-free)
1-602-343-1496 (direct, int'l)

Optilab, LLC
Phoenix, AZ, USA

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➤ Based in Phoenix, Az

Technical Features

Constructed with long term uninterrupted service in mind, the pEDFA Series features a convenient rackmount unit that conserves on cost, space, and maintenance. The pEDFA Series features a dual 48 V DC and AC 110/220 volt power supply.

EDFA Specifications (pEDFA Series)	
Operating Wavelength Range	1540 nm to 1570 nm
EDFA Output Power Level	+34 to +40 dBm available
EDFA Input Power	-5 to +10 dBm
Number of Ports	Up to 64 port available
Output Power Per Port	See chart below
Port To Port Variation	±0.5 dB max.
Noise Figure (NF)	4.5 dB typ.
Residual Pump Power	-30 dBm/nm max.
Optical Return Loss	50 dB min.
Input/Output optical Isolation	30 dB min.
Output Power Stability	±0.2 dB over 8 hours max.
Input / Output Fiber Type	Corning SMF-28
Mechanical Specifications	
Opertional Temperature Range	-10°C to +55°C standard
Storage Temperature Range	-40°C to +70°C
Power Supply	110 – 220V AC, 43 – 63 Hz AC; 48V DC
Optical Connectors	Duplex SC/APC standard
Power Consumption	80 W max.
Housing Dimensions	2RU 19"(W) x 17.5"(D) x 3.5"(H)
Control / Monitoring	Laser Temperature, EDFA power
Remote Interface	SNMP
Alarm	Over Temperature, Over Current

Configural Specifications			
Part Number	EDFA	Number of Ports	Output Power/Port
pEDFA-34-32	+34 dBm	32	+16dBm
pEDFA-37-32	+37 dBm	32	+19 dBm
pEDFA-37-64	+37 dBm	64	+16 dBm
pEDFA-40-32	+40 dBm	32	+22 dBm
pEDFA-40-64	+40 dBm	64	+19 dBm

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# High-Power, Multiport EDFA | pEDFA Series

pEDFA Series Installation with Video + xPON Overlay

The pEDFA series provides a robust and reliable amplification solution for 1550 nm Video overlay utilized by xPON networks. With the flexibility to handle small to mid-sized municipal and rural networks, these EDFA's can meet the demanding requirements of large Tier 1 service providers, while being versatille for Tier 2 & 3 systems. The RFoG + xPON with pEDFA can provide service for as many as 2,048 subscribers for up to 10 km without the need for amplification.
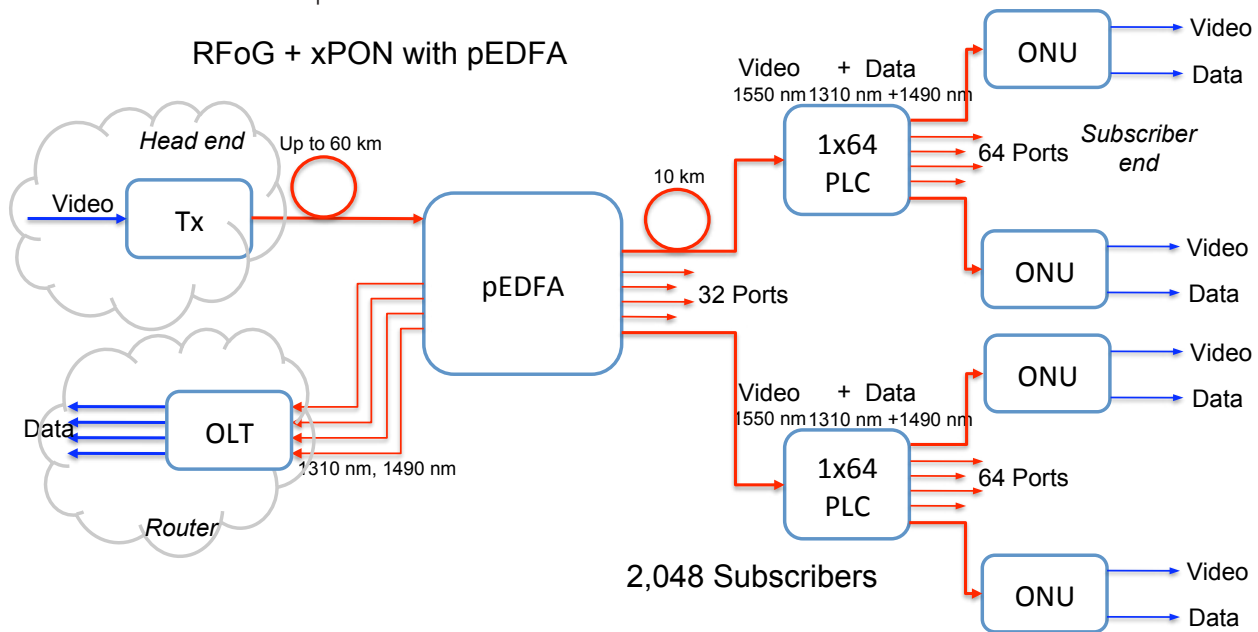
Wavelength Allocation Plan

The pEDFA series supports a 1550 nm video forward path wavelength for downstream signals. PON utilizes 1490 nm and 1310 nm. The pEDFA can amplify all CWDM wavelengths.1610 nm is the return path wavelength for upstream signals. Below is an illustration of all of the wavelength allocations.
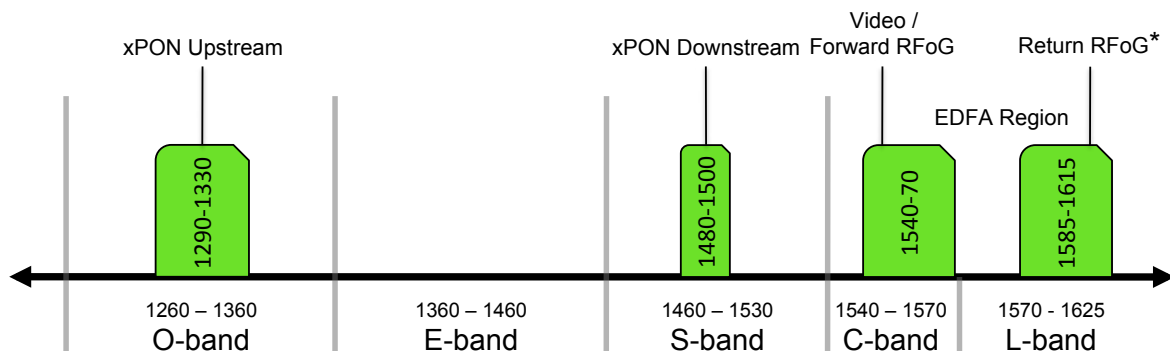
*pEDFA series can be incorporated with RFoG return path capabilities

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